

REMARKS

In an Advisory Action dated July 20, 2001, the Examiner: allowed claims 3 and 5; objected to claim 7; and maintained the rejection of claims 2, 4, 8, 9, 13-16, 18-26, and 28-35. On August 3, 2001, Applicant filed a Request for Continued Examination (RCE) requesting entry and consideration of an After Final Amendment filed July 3, 2001. Furthermore, Applicant thanks the Examiner for conducting an interview on August 13, 2001.

By this Supplemental Preliminary Amendment, Applicant amends claims 14, 16 and 30-35. Claims 2-5, 7-9, 13-16, 19-26 and 28-35 are currently pending.

Objection to the Information Disclosure Statement Filed December 1, 1998

In the Advisory Action, the Examiner indicated that copies of the cited documents were not received in the Information Disclosure Statement (IDS) previously filed on December 1, 1998. As a courtesy to the Examiner, filed herewith is a copy of the previously filed documents and the form PTO-1449 previously submitted on December 1, 1998. The Examiner is respectfully requested to send a duplicate copy of the form PTO-1449 initialed, signed and dated, which both acknowledges receipt and indicates that the documents were considered by the Examiner.

Applicant respectfully submits that the IDS filed on December 1, 1998, was timely filed and complied with the requirements of 37 C.F.R. § 1.97 and M.P.E.P. § 609. A copy of a stamped postcard acknowledging receipt of the IDS and copies of the cited references is filed herewith.

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**Objection to Information Disclosure Statement Filed October 24, 2000**

In the Advisory Action, the Examiner stated she did not consider the IDS filed October 24, 2000. In response, Applicant again submits document HEI6-290254 as well as a translation of an Office Action in the Japanese Patent Application No. 7-204849 corresponding to the present application, in which the Japanese Examiner applied document HEI6-290254 against claim 2 of the Japanese application. Applicant respectfully requests that the Examiner disregard the previously submitted documents and consider the enclosed documents. The Examiner is respectfully requested to send a duplicate copy of the corrected form PTO-1449 initialed, signed and dated, which both acknowledges receipt and indicates that she has considered the enclosed documents.

**Allowable Subject Matter**

In the Advisory Action, the Examiner allowed claims 3 and 5. Applicant thanks the Examiner for allowing these claims. In addition, the Examiner indicated that claim that claim 7 would be allowable if rewritten in independent form. Upon filing of the RCE and entry of the After Final Amendment, claim 7 was rewritten in independent form and includes subject matter which the Examiner admitted is allowable. Accordingly, Applicant respectfully submits that claim 7 is allowable.

**Rejection of claims 2, 4, 8-9, 13-16, 19-26, and 28-35**

In the Advisory Action, the Examiner maintained the rejection of claims 2, 4, 8-9, 13-16, 19-26, and 28-35 under 35 U.S.C. § 103, as being unpatentable over Crane et al., U.S. Patent No. 6,054,991 in view of Blahut et al., U.S. Patent No. 5,463,728 and

further in view of Harrison et al., "Transparent Layered User Interfaces: An Evaluation of a Display Design to Enhance Focused and Divided Attention", Conference on Human Factors and Computing Systems", May 1995, Pages 317-324. Applicant respectfully traverses the rejection.

In the Advisory Action, the Examiner indicated that claims 2, 4, 8-9, 13, 15, 19-26, and 28-29 would be allowable as proposed in the After Final Amendment dated July 3, 2001. Upon filing of the RCE and entry of the After Final Amendment, claims 2, 8-9, 13, 25 and 28-29 were amended to include subject matter that the Examiner admitted is allowable (See also, *Office Action dated October 3, 2000, page 4, para. 3*). Thus, claims 2, 8-9, 13, 25 and 28-29 are allowable.

Claims 4, 19 and 23 depend from claim 2 and are allowable for at least their dependency on allowable claim 2 as well as their additional recitations. Claim 20 depends from claim 8 and is allowable for at least its dependency on allowable claim 8 as well as its additional recitations. Claim 21 depends from claim 9 and is allowable for at least its dependency on allowable claim 9 as well as its additional recitations. Claims 15, 22 and 24 depend from claim 13 and are allowable for at least their dependency on allowable claim 13 as well as their additional recitations. Claim 26 depends from claim 25 and is allowable for at least its dependency on allowable claim 25 as well as its additional recitations.

In regard to claims 14 and 16, by this Supplemental Preliminary Amendment, Applicant has amended claims 14 and 16 to include subject matter which the Examiner has admitted is allowable (See *Office Action dated October 3, 2000, para. 4, page 4*). Therefore, claims 14 and 16 are allowable.

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In regard to claims 30-35, by this Supplemental Preliminary Amendment, Applicant has amended claims 30-35 to include subject matter which the Examiner admitted is allowable during the interview on August 13, 2001. Therefore, claims 30-35 are allowable.

In view of the foregoing remarks, Applicant respectfully requests reconsideration and withdrawal of the rejections 2, 4, 8, 9, 13-16, 18-26, and 28-35 and the timely allowance of claims 2-5, 7-9, 13-16, 19-26, and 28-35.

**CONCLUSION**

Attached hereto is a marked-up version of the changes made to claims 14, 16, and 30-35 by this amendment. The attached page is captioned "Version with markings to show changes made." Deletions appear as normal text surrounded by [ ] and additions appear as underlined text.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: August 30, 2001

By:   
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

14. (Three Times Amended) A game device which generates images observed from a viewpoint to be displayed on a monitor, the images including a player-controlled object moving relative to virtual terrain objects, the player-controlled object and the terrain objects being defined within a three-dimensional virtual space, the game device comprising:

an input means with which a game player operates a computer game; shape data memory which stores shape data defining shapes of the terrain objects present in the virtual space;

a position data specifier which specifies a current position for the player-controlled object with respect to the terrain objects;

overlap determination means which determines, on the basis of the shape data and the position data, whether a terrain object is located between the viewpoint and the player-controlled object; and

an image generator which generates image data for displaying on the monitor screen the player-controlled object and the terrain objects viewed from the viewpoint wherein a terrain object is processed so as to be rendered [displayed] as a show-through image through which the player-controlled object is viewed in the event that the overlap determiner determines that the player-controlled object is [located behind] intervened by the terrain object in an overlapping state when viewed from the viewpoint.

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16. (Three Times Amended) A game device as defined by claim 14, wherein the overlap determiner:

compares a displacement from a ground point for a first reference point for the player-controlled object with a displacement from the ground point for a second reference point for the terrain object; and

determines whether an overlap state, in which the player-controlled object is intervened by [located behind] the terrain object when viewed from the viewpoint, exists in accordance with whether an angle falls within a prescribed relationship with a reference angle and the displacement for the first reference point is smaller than the displacement for the second reference point.

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30. (Three Times Amended) An information storing medium for use with a game provided by a computer system, [defining] wherein the game comprises objects in a three-dimensional virtual space, the objects including an operator-controlled object and a terrain composed of terrain objects, and wherein the computer system generates images of the objects viewed from a viewpoint for displaying on a monitor, the medium storing a program which executes the steps of:

receiving signals from an input means controlled by an operator;

processing the signals so that operator-controlled object moves relative to their terrain objects in response to the signals;

determining positions of the operator controlled object with respect to the terrain objects; and

generating images of the operator-controlled object and the terrain objects viewed from the viewpoint for displaying on the monitor,

wherein, in the event that a terrain object is located between the viewpoint and the operator-controlled object in the three dimensional virtual space when viewed from the viewpoint, a portion of the terrain object overlapping with the operator controlled object is generated with a show-through effect generated by alternately displaying pixels indicative of the terrain object and pixels indicative of the operator-controlled object in a prescribed pattern.

31. (Twice Amended) A virtual image generation apparatus for a game, wherein the game comprises an operator-controlled object moving relative to terrain objects within a three-dimensional virtual space, the virtual image generation apparatus comprising:

shape data memory which stores data defining shapes of a plurality of terrain objects within [a] the three-dimensional virtual space;

position specification means which specifies a position of [an] the operator-controlled object within the virtual space;

overlap determination means which determines whether [a] one of the terrain [object] objects is located between a viewpoint and the operator-controlled object;

first image generation means which generates image data for the operator-controlled object and the plurality of terrain objects as viewed from the viewpoint; and

second image generation means which generates image data for the operator-controlled object and the terrain objects comprising alternately generating pixels indicative of at least one of the terrain [object] objects and indicative of the operator-controlled object in a prescribed pattern if the overlap determination means determines that the operator-controlled object is located behind the at least one terrain object when viewed from the viewpoint.

32. (Twice Amended) A virtual image generation method for a game, wherein the game comprises an operator-controlled object moving relative to terrain objects within a three-dimensional virtual space, the virtual image generation method comprising the steps of:

storing data defining shapes of a plurality of terrain objects within [a] the three-dimensional virtual space;

computing the position of [an] the operator-controlled object within the virtual space;

determining whether [a] one of the terrain [object] objects is located between a viewpoint and the operator-controlled object; and

generating image data for the operator-controlled object and the plurality of terrain objects as viewed from the viewpoint;

wherein generating image data for the operator-controlled object and at least one of the terrain [object] objects comprises alternately generating pixels indicative of the at least one terrain object and indicative of the operator-controlled object in a prescribed pattern if the operator-controlled object is located behind the at least one terrain object when viewed from the viewpoint.

33. (Twice Amended) An information storing medium storing a program for a game, wherein the game comprises an operator-controlled object moving relative to terrain objects within a three-dimensional virtual space, the program which executes the steps of:

storing data defining shapes of a plurality of terrain objects within [a] the three-dimensional virtual space;

computing the position of [an] the operator-controlled object within the virtual space;

determining whether [a] one of the terrain [object] objects is located between a viewpoint and the operator-controlled object; and

generating image data for the operator-controlled object and the terrain objects as viewed from the viewpoint;

wherein generating image data for the operator-controlled object and at least one of the terrain [object] objects comprises alternately generating pixels indicative of the at least one terrain object and indicative of the operator-controlled object in a prescribed pattern if the operator-controlled object is located behind the at least one terrain object when viewed from the viewpoint.

34. (Twice Amended) A computer system configured as a game device,  
wherein the game device comprises an operator-controlled object moving relative to  
terrain objects within a three-dimensional virtual space, the computer system  
comprising:

an input means for operating [an] the operator-controlled object;  
first generating means for generating image data of the operator-controlled object and a plurality of terrain objects from a plurality of viewpoints, processing means for determining the position of the operator-controlled object with respect to the plurality of terrain objects as viewed from a viewpoint; and second generating means for generating image data for the operator-controlled object and the terrain objects comprising alternately generating pixels indicative of at least one of the terrain [object] objects and indicative of the operator-controlled object in a prescribed pattern if the operator-controlled object is located behind the at least one terrain object when viewed from the viewpoint.

35. (Twice Amended) A game device, wherein the game device comprises a player-controlled object moving relative to terrain objects within a three-dimensional virtual space, the game device comprising:

a controller for operating [a] the player-controlled object;

a shape data memory which stores data defining shapes of a plurality of terrain objects present in [a] the three-dimensional virtual space;

a position data specifier which specifies a current position for the player-controlled object within the virtual space;

an overlap determination processor which determines whether [a] one of the terrain [object] objects is located between a viewpoint and the player-controlled object; and

an image generator which generates image data for the player-controlled object and the terrain objects as viewed from the viewpoint and image data for the player-controlled object and the terrain object comprising alternately generating pixels indicative of at least one terrain object and indicative of the player-controlled object in a prescribed pattern if the overlap determination processor determines that the player-controlled object is located behind the at least one terrain object when viewed from the viewpoint.